

REMARKS

Claim 66 is amended and claims 66-71 remain pending in the application.

The specification is amended to correct a minor typographical error in paragraph 0009.

The pending claims stand rejected as being anticipated by Han (U.S. Patent 5,725,973); Bae (U.S. Patent 5,563,009); Lin (U.S. Patent 4,902,899); or Lucas (U.S. Patent 5,827,625). Applicant respectfully requests reconsideration of such rejections.

Referring initially to claim 66, such recites a method of forming aligned structures with a radiation-sensitive material. Such method includes provision of a substrate having a radiation-sensitive material thereover. The substrate and radiation-sensitive material contain at least three defined regions, with such regions including a first region, a second region and a third region. The method further recites that the first region of the radiation-sensitive material is exposed to a first dose of actinic radiation, the second region of the radiation-sensitive material is exposed to a second dose of actinic radiation less than the first dose, and the third region of the radiation-sensitive material is not exposed to either the first or second dose of actinic radiation. The claim further recites that the radiation-sensitive material is developed, with such development removing radiation-sensitive material from over the first region of the substrate and leaving radiation-sensitive material over the second and third regions of the substrate. The claim next recites that the first region is treated, and that after such treatment the second and third regions of the radiation-sensitive material are exposed to a blanket dose of actinic radiation. The claim recites that the radiation-sensitive material is developed after the exposure to the blanket

dose of actinic radiation, and that such development removes radiation-sensitive material from over the second region of the substrate while leaving the radiation-sensitive material over the third region of the substrate. Finally, the claim recites that the second region of the substrate is treated while the radiation-sensitive material remains over the third region of the substrate.

The subject matter of claim 66 is supported by the originally-filed application at, for example, Figs. 18-23. Specifically, Fig. 18 shows a construction 100 at a preliminary processing stage. Such construction comprises a substrate (structures 52 and 55) having a radiation-sensitive material (57) thereover. The substrate and radiation-sensitive material contain three exemplary regions of the type defined in claim 66, with such exemplary regions corresponding to, for example, a first region 63, a second region 61, and a third region which corresponds to portions of the substrate which are not exposed to actinic radiation at the processing stage of Fig. 18. Fig. 18 shows the first region exposed to a first relatively high dose of actinic radiation (the dose 67), the second region exposed to a second dose of actinic radiation which is less than the first dose (the dose 69), and the third region not being exposed to either the first or second doses of the actinic radiation. Fig. 19 shows the radiation-sensitive material developed after exposure to the actinic radiation, and shows that the radiation-sensitive material is removed from the first region 63, and left over the second region 61 and the third region. Fig. 20 shows the substrate of the first region treated, with such treatment corresponding to removal of layer 52 of the substrate in the shown exemplary aspect of the invention, and Fig. 21 shows further treatment corresponding to removal of some of underlying base material 55. Fig. 22 shows

exposure of the second and third regions of the substrate to a blanket dose (the dose 71) of actinic radiation. Fig. 23 shows development of the radiation-sensitive material, with such development including the removal of radiation-sensitive material from over second region 61 while leaving radiation-sensitive material over the third region of the substrate. Fig. 24 shows treatment of the second region of the substrate while the radiation-sensitive material remains over the third region of the substrate, with such treatment corresponding to removal of material 52 from over the second region 61 in the shown aspect of the invention.

Claim 66 is allowable over the cited references for at least the reason that the references do not suggest or disclose the claim 66 recited features of exposing multiple regions of a substrate and radiation-sensitive material to the various recited doses of actinic radiation, and further because the cited references do not suggest or disclose the claim 66 recited treatment of various regions of a substrate which have been exposed through the claim 66 recited utilization of various doses of actinic radiation.

The Examiner appears to be citing Han, Bae, Lin and Lucas to allege that various of the structures of Applicant's invention were known in the art. Applicant respectfully submits, however, that claims 66-71 are method claims, and that not one of the cited references suggests or discloses the method steps of claim 66, such as, for example, the exposure of different regions of radiation-sensitive material to different doses of actinic radiation, followed by development of the radiation-sensitive material to remove the material from over a recited first region while leaving the material over recited second and third regions, nor do the references suggest or disclose the claim 66 recited treatment of

particular regions of a substrate after removal of radiation-sensitive material from over such particular regions of the substrate.

As the cited references do not suggest or disclose the recited methodological aspects of claim 66, claim 66 is allowable over the cited references. Applicant therefore requests such allowance in the Examiner's next action. Claims 67-71 depend from claim 66, and are therefore allowable for at least the reasons discussed above regarding claim 66, as well as for their own recited features which are neither shown nor suggested by the cited references.

Claims 66-71 are allowable over the cited references for the reasons discussed above, and Applicant therefore requests formal allowance of such claims in the Examiner's next action.

Dated: 11/3/09

Respectfully submitted,

By: 

David G. Latwesen, Ph.D.
Reg. No. 38,533